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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,594	04/28/2000	Samuel N. Zellner	BS99-185	3133

28970 7590 09/05/2003

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EXAMINER

PHAN, MAN U

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/559,594

Applicant(s)

Zellner et al.

Examiner

Man Phan

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 28, 2000
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.
- ## Disposition of Claims
- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-46 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Apr 28, 2000 is/are ☒ accepted or ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: ☐ approved ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

DETAILED ACTION

1. The application of Zellner et al. for a "System and method for dynamic allocation of capacity on wireless network" filed 04/28/2000 has been examined. This application is a continuation in part of US application 08/903,534 filed 07/30/1997 is now US patent No. 6,069,882. The preliminary amendment has been entered and made of record. Claim 1-46 are pending in the application.

Specification

2. The disclosure is objected to because of the following informalities:
The status of the related application US application No. 08/903,534 filed on July 30, 1997 need to be updated. This application is now US Patent No. 6,069,882.
Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph et al. (US#5,574,977) in view of Kilkki et al. (US#6,421,335).

With respect to claims 1-6 and 9-13, both Joseph et al. (US#5,574,977) and Kilkki et al. (US#6,421,335) discloses a novel system for allocating network access based on priority level in a cellular communication system according to the essential features of the claims. Joseph teaches a system and method for providing Priority Access and Channel Assignment (PACA) to designated subscribers in a wireless communications, comprising a wireless network having a plurality of access links for transmitting transactions; a plurality of wireless communications devices for requesting transmission of transactions on the wireless network, wherein a designated priority level is associated with each transaction (Figs. 4A&B; Col. 2, lines 31 plus). The priority access and channel assignment feature is well known in the art and is described in detail in "TIA/EIA/IS-53-

A Cellular Features Description", in which the calls from the mobile communication devices are prioritized. The base station distinguished between a regular or high priority subscriber. The base station may also distinguish between a regular, high or low priority call. As the volume of calls increases on wireless networks and the cost for providing a wireless service decreases, the feature of prioritizing calls becomes more and more important to wireless service providers and the users.

However, Joseph does not expressly disclose an access control manager for scheduling transmission of transactions, wherein the transaction of lower priority are temporarily discontinued in favor of higher priority transactions when all of the plurality of access links are occupied. In the same field of the endeavor, Kilkki et al. discloses a system and method for integrating a priority-based quality of service in CDMA communication systems that implement data packet transmission, in order to effectively allocate radio resources. Data packet transfers are selectively allocated over a wireless interface operating under a Code Division Multiple Access (CDMA) protocol. A nominal bit rate is established for each user desiring access to the CDMA interface. A relative packet priority is calculated for each of the data packets based on an actual bit rate at the source of the CDMA interface and the established nominal bit rate. An allowable packet priority is calculated for the CDMA interface based on a signal-to-noise ratio of the CDMA interface, and those of the data packets having a relative packet priority greater than or equal to the allowable packet priority of the CDMA interface are transmitted across the CDMA interface (See Fig. 4 and the Abstract). Kilkki teaches in Fig. 12 a flow diagram of a process for selectively allocating data packet transfers over a

wireless interface operating under a CDMA protocol, in which the transactions of lower priority are temporarily discontinued in favor of higher priority transactions when network capacity reaches a predetermined level (Col. 16, lines 4 plus). Kilkki further teaches in Fig. 4 a system block diagram illustrated a priority-based quality of service in CDMA communication architecture, in which the user interface UNI 124 transmits the cell, which contains priority level information, to a node of the network 130, such as node.sub.A 132. The node.sub.A 132 accepts or discards the cell received from the UNI 124 based on the priority level of the cell and the buffering capacity of node.sub.A 132. In general, as the occupancy of the buffer or memory of node.sub.A 132 increases (i.e., becomes more filled), *cells having a lower priority (i.e., higher priority level value) are discarded in favor of accepting cells having a higher priority (i.e., lower priority level value)*. As the occupancy level of the buffer of node.sub.A 132 decreases (i.e., becomes less filled), the node.sub.A 132 becomes increasingly tolerant toward accepting cells of lower priority (i.e., higher priority level values). Cells that are buffered in node.sub.A 132 are subsequently transmitted to another node in the network 130, such as node.sub.B 134, or other network and, ultimately, to an end-destination 136 (Col. 9, lines 6 plus).

Regarding claims 7-8, Joseph further discloses in Fig. 1 a message flow diagram, in which the mobile station is not yet known to the serving MSC. The serving MSC 21 then sends a profile request (PROFREQ) message 22 to the serving VLR 18 to obtain the service profile 23 of the subscriber associated with the called mobile station. The subscriber's service profile 23 is returned to the serving MSC 21 and includes default PACA information (*default priority access level*) (Col. 4, lines 60 plus).

Regarding claims 26-29 and 36-37, they are method claims corresponding to the claims 1-13 above. Therefore, claims 26-29 and 36-37 are analyzed and rejected as previously discussed with respect to claims 1-13 above.

One skilled in the art would have recognized the need for effectively and efficiently allocation of limited capacity on a wireless network based on priority access, and would have applied Kilkki's novel use of the priority-based quality of service in CDMA communication into Joseph's teaching of the priority access and channel assignment to designated subscribers. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Kilkki's CDMA communication system and method using priority-based SIMA quality of service class into Joseph's system and method for providing priority access and channel assignment in a cellular telecommunication system with the motivation being to provide a method and system for allocating network access on a wireless network according to a selected transmission priority level.

6. Claims 14-22 and 24-25 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph et al. (US#5,574,977) in view of Kilkki et al. (US#6,421,335), as applied to the claims above, and further in view of Scholefield et al. (US#5,752,193).

Regarding to claims 14-22 and 24-25, Joseph and Kilkki disclose the claimed limitations discussed in paragraph 5 above. However, Joseph et al. and Kilkki et al. do not expressly disclose the claimed feature of a communication manager in the wireless communication device for generating a control message to be transmitted to the wireless

network to request transmission of a transaction, the control message including an identification code for the wireless communication device and a priority level associated with the transaction. In the same field of endeavor, Scholefield et al. Teaches in Fig. 6 a diagram illustrated a messaging for access and data transfer according to the priority, in which the message sequence for uplink transfer 610 includes the priority indicator and other desirable information (such as identifiers, authentication information, a parameter including multiple subchannel transmission capability, etc.). Scheduler 117 receives the access request and, based upon channel/activity factors such as the priority level, number of other pending requests of similar or higher priority, size of the SDU(s), authentication results, a determination is made whether to allocate traffic subchannel(s). Upon determination that the request has the highest priority, for example by comparing priority levels or FIFO (first in first out) within the same grade, an allocation is sent via the control DBGs, e.g. during frames 515-519, each such frame corresponding to a traffic burst group 525-529, respectively. Upon monitoring for and receiving the allocation(s), the subscriber communicates the PDU via the designated burst groups (Col. 5, lines 8 plus).

Regarding claims 30-35 and 38-42 and 43-46, they are method claims corresponding to the claims 14-22 and 24-25 above. Therefore, claims 30-35 and 38-42 and 43-46 are analyzed and rejected as previously discussed with respect to claims 14-22 and 24-25 above.

One skilled in the art would have recognized the need for effectively and efficiently allocation of limited capacity on a wireless network based on priority access,

and would have applied Scholefield's control message including the priority level, and Kilkki's novel use of the priority-based quality of service in CDMA communication into Joseph's teaching of the priority access and channel assignment to designated subscribers. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Scholefield's method and apparatus for communicating in a wireless communication system, and Kilkki's CDMA communication system and method using priority-based SIMA quality of service class into Joseph's system and method for providing priority access and channel assignment in a cellular telecommunication system with the motivation being to provide a method and system for policing pricing wireless communications services on a wireless network according to a selected transmission priority level.

Allowable Subject Matter

7. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose or suggest the step wherein the communications manager requests transmission of a discontinued transaction after receiving a signal from the wireless network that there is capacity for a transaction

having a lower or same priority as the discontinued transaction, as specifically recited in claim 23.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Harrison et al. (US#6,091,709) is cited to show the quality of service management for packet switched network.

The Kilkki (US#6,522,653) is cited to show the use of priorities defined by a customer in a SIMA network.

The Galyas et al. (US#6,519,260) is cited to show the reduced delay priority for comfort noise.

The Linneweh, Jr. et al. (US#5,862,485) is cited to show the method and apparatus for allocating communication resources to support priority communications in a communication system.

The Dalal (US#6,321,093) is cited to show the system and method for controlling

priority calls in a wireless network.

The Solondz (US#5,615,249) is cited to show the service prioritization in a cellular telephone system.

The Bolliger et al. (US#5,226,071) is cited to show the call path resource allocation in a wireless telecommunications system.

The Begeja (US#6,175,621) is cited to show the priority call on busy.

The Kilkki et al. (US#6,549,938) is cited to show the system and method for prioritizing multicast packets in a network service class utilizing a priority-based quality of service.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (703)305-1029. The examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

12. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 305-9051, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021

Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Mphan

08/29/2003.

Man u. phan